

## Docol Roll 800

### General Product Description

Cold-rolled, high-strength steel for roll forming. Docol Roll 800 is characterized by both a high yield strength and an improved cleanliness, which allows for a tight radius. In deep drawing, the material should have a low yield strength to tensile strength ratio. In roll forming, however, you benefit from using a material with a high yield strength in order to avoid unwanted longitudinal plastic strains in the product.

### Dimension range

Docol Roll 800 / UC: thickness 0.80-2.10 mm, width up to 1527mm, length up to 8500 mm.

Docol Roll 800 / GI: thickness 0.80-2.00 mm, width up to 1530mm, length up to 6000 mm.

Slitting to narrow coils and cutting to sheets are available upon request.

### Mechanical Properties

Steelgrade	Thickness (mm)	Coating	Yield strength $R_{p0.2}$ (MPa)	Tensile strength $R_m$ (MPa)	Elongation $A_{80}$ (min %)	Min. inner bending radius for 90 °
Docol Roll 800	0.50- 0.70	UC	600- 750	800- 950	8	-
Docol Roll 800	0.71- 2.10	UC	600- 750	800- 950	10	-
Docol Roll 800	0.80- 2.00	GI	620- 770	800- 950	8	0.8xt <sup>1)</sup>

The mechanical properties are tested transverse to the direction of rolling.

1) The minimum bending radius is only valid when roll forming and apply to steel when bending angle is 90°. In some cases tight bending radius may cause micro-cracking of the coating in the bend area. Where design permits, users are encouraged to employ larger radius.

### Chemical Composition

Steel-grade	Product Type	C (max %)	Si (max %)	Mn (max %)	P (max %)	S (max %)	Al (max %)	Nb+Ti (max %)	Cr+Mo (max %)	B (max %)	Cu (max %)
	Uncoated	0.16	0.40	1.80	0.020	0.010	0.015-	0.10	-	-	-
Docol Roll 800	Metal coated	0.18	1.00	2.50	0.050	0.010	0.015-1.00	0.15	1.00	0.005	0.20

### Tolerances

Hot-dip metal coated: (GI) Tolerances in accordance to EN10143.

Customized dimensional and shape tolerances are available on request.

### Coatings and surface treatments

#### Coatings

The metal coatings options for Docol products include:

**Hot dip zinc coating (GI)** consists almost entirely of zinc (>99%). It is lead free, resulting in a small zinc spangle size. The coating provides good corrosion protection.

Grade specific availability of metal coated Docol products are given in the Mechanical properties table, coating column.

Type	Coating class	Standard	Closest in EN10346, informative	Coating mass per side, Single spot test (g/m <sup>2</sup> )	Thickness per side, informative (μm)	Density (g/cm <sup>3</sup> )	Surface quality (U = unexposed, E = exposed)
GI	40	VDA239-100	Z100	40- 60 (1)	5,6- 8,5	7,1	U
GI	50	VDA239-100		50- 70 (1)	7,0- 9,9	7,1	U
GI	60	VDA239-100	Z140	60- 90	8,5- 12,7	7,1	U
GI	70	VDA239-100		70- 100	9,9- 14,1	7,1	U
GI	85	VDA239-100		85-115	12,0- 16,2	7,1	U
GI	115	VDA239-100	Z275	115-155	16,2- 21,8	7,1	U

(1) For hot-dipped (GI) hot rolled (HR) grades, the coating mass tolerance is increased to 30 g/m<sup>2</sup> by increasing the upper limit.

(2) EG products can be supplied with single side coating if agreed up on at the time of order. Such coating are designated ZE25/00, etc.

In addition to these coating masses, asymmetric coatings and OEM coating specifications are available upon request.

### Surface treatments

All surface treatments are in accordance with RoHS directive (2011/65/EU) and do not contain Chromium VI (Cr6+). Surface treatments provide only temporary surface protection during transportation and storage. In order to avoid corrosion damages, care must be taken to keep the products dry during transportation and storage. If they become wet, they must be separated and situated so that they are dried quickly.

Surface coating	Available surface treatment
GI	Chemically passivated (C)
GI	Oiled (O)
GI	Chemically passivated and oiled (CO)
GI	Unprotected (U)
UC (Cold-rolled)	Oiled
UC (Cold-rolled)	Unprotected

### Fabrication and Other Recommendations

For information concerning fabrication, see SSAB's brochures on [www.ssab.com](http://www.ssab.com) or consult Tech Support, [techsupport@ssab.com](mailto:techsupport@ssab.com).

Appropriate health and safety precautions must be taken when bending, welding, cutting, grinding or otherwise working on the product.

### Contact Information

[www.ssab.com/contact](http://www.ssab.com/contact)